

FIG. 1

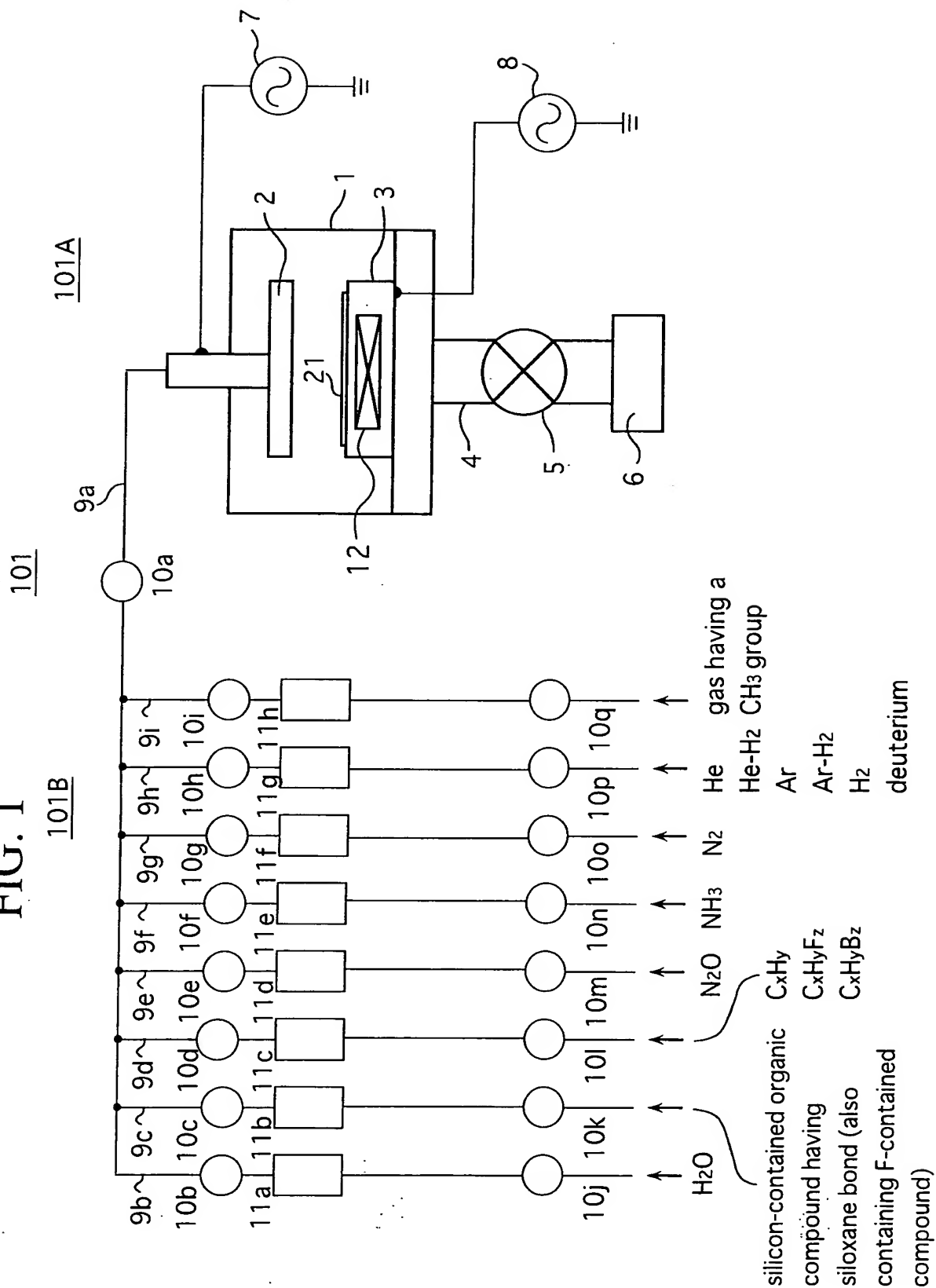


FIG. 2 (a)

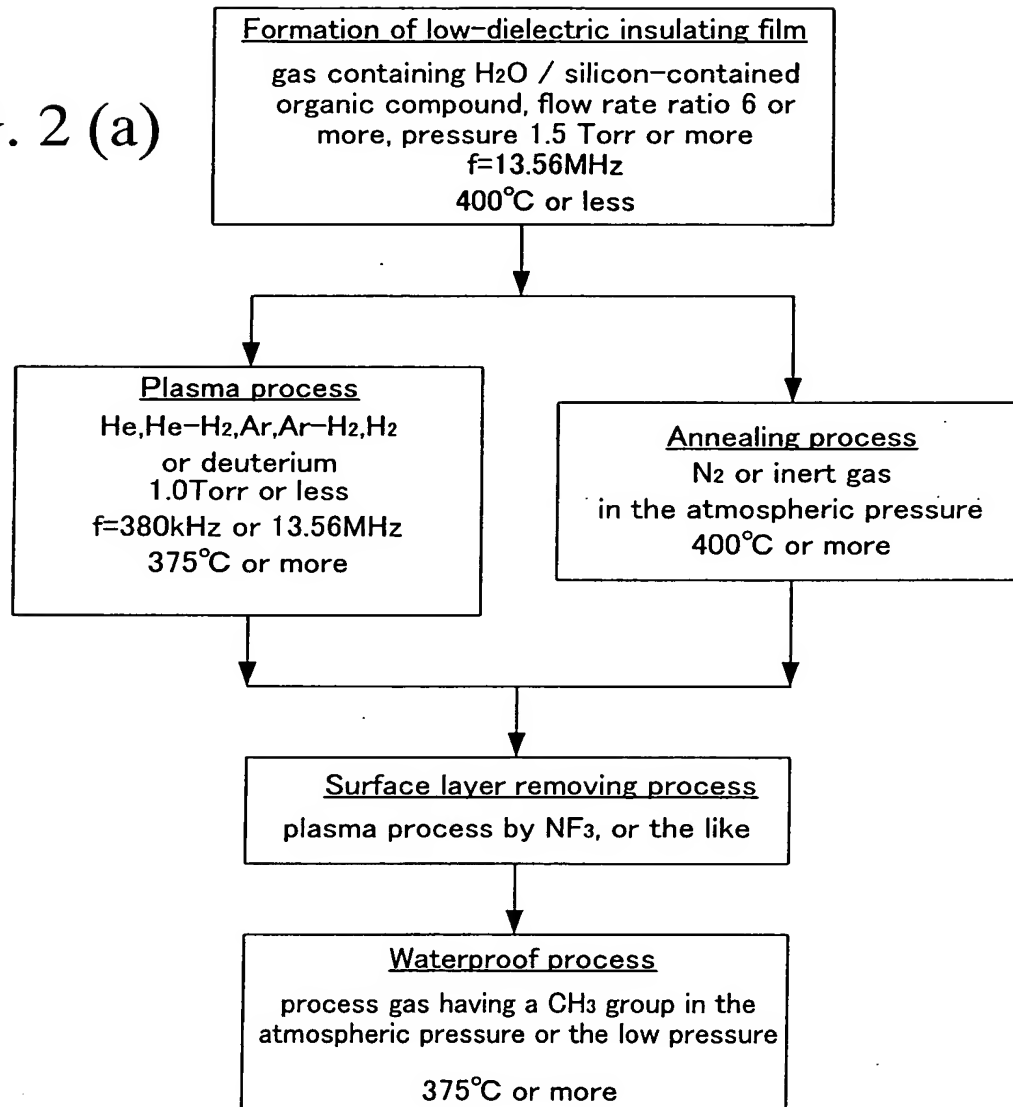


FIG. 2 (b)

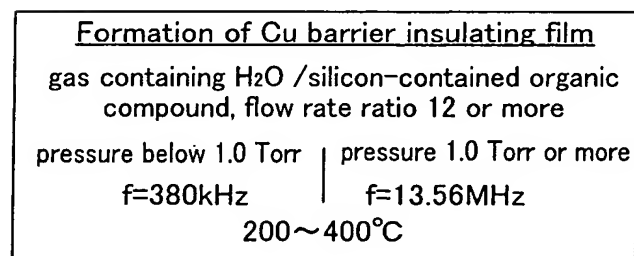


FIG. 3

formed film indication	1(2)	3(4)	5(6)	7(8)	9(10)	11(12)	13(14)
formed film type	Low-k	Low-k	barrier	barrier	barrier	barrier	barrier
H ₂ O	○	○	○	○	○	○	○
silicon-contained organic compound	○	○	○	○	○	○	○
C _x H _y , C _x H _y F _z , C _x H _y B _z	(○)	(○)	(○)	(○)	(○)	(○)	(○)
N ₂ O				○			○
NH ₃					○		○
N ₂						○	
plasma process	○						
annealing process		○					
surface layer removing process	(○)	(○)					
waterproof process	(○)	(○)					

FIG. 4

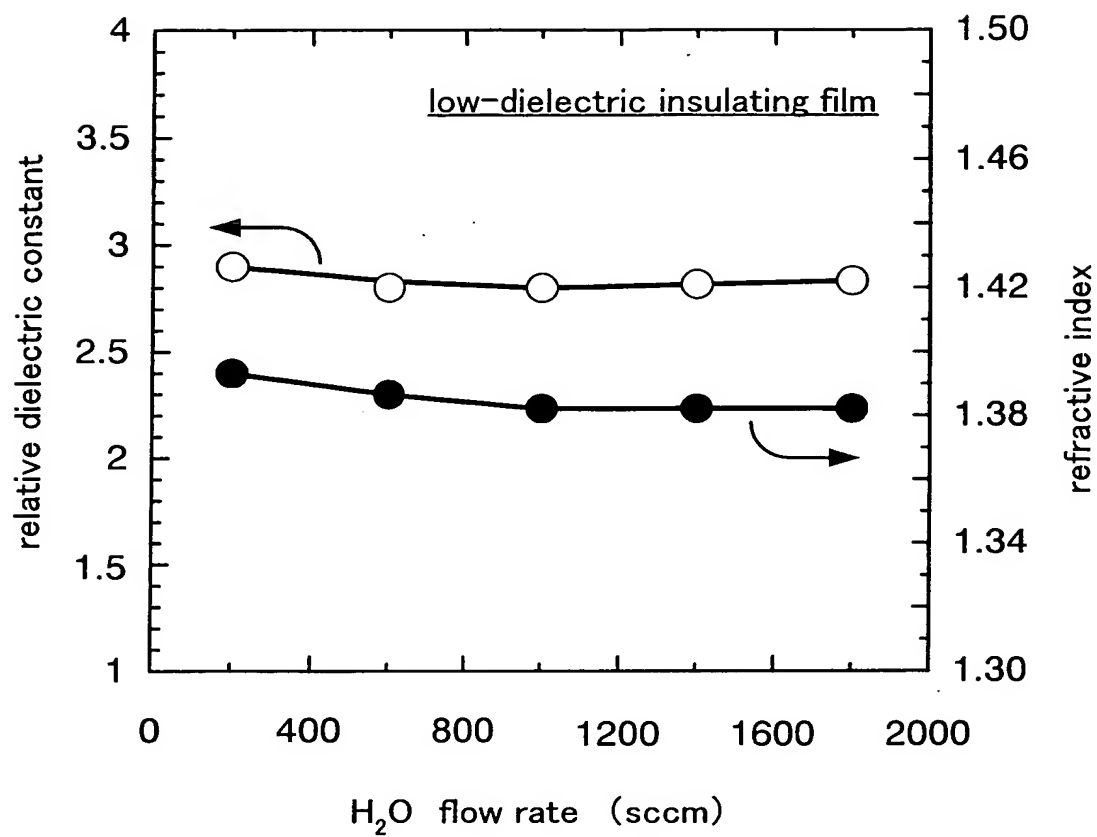


FIG. 5

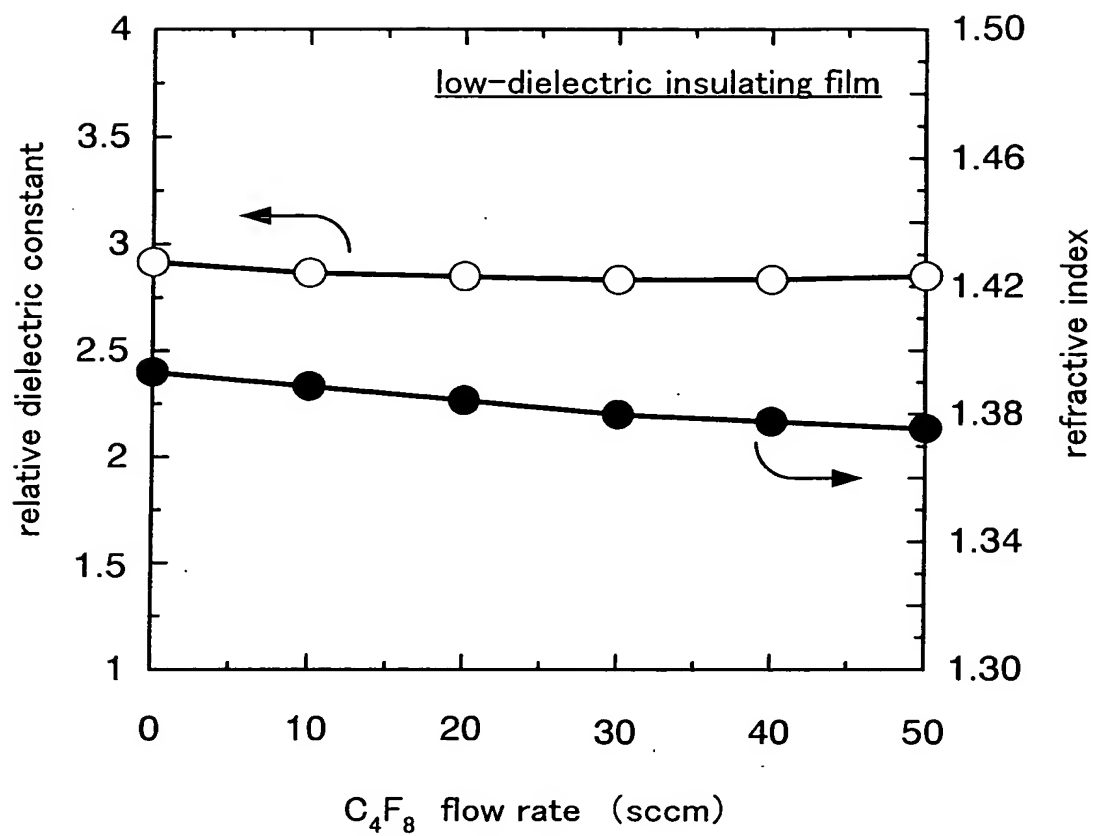


FIG. 6

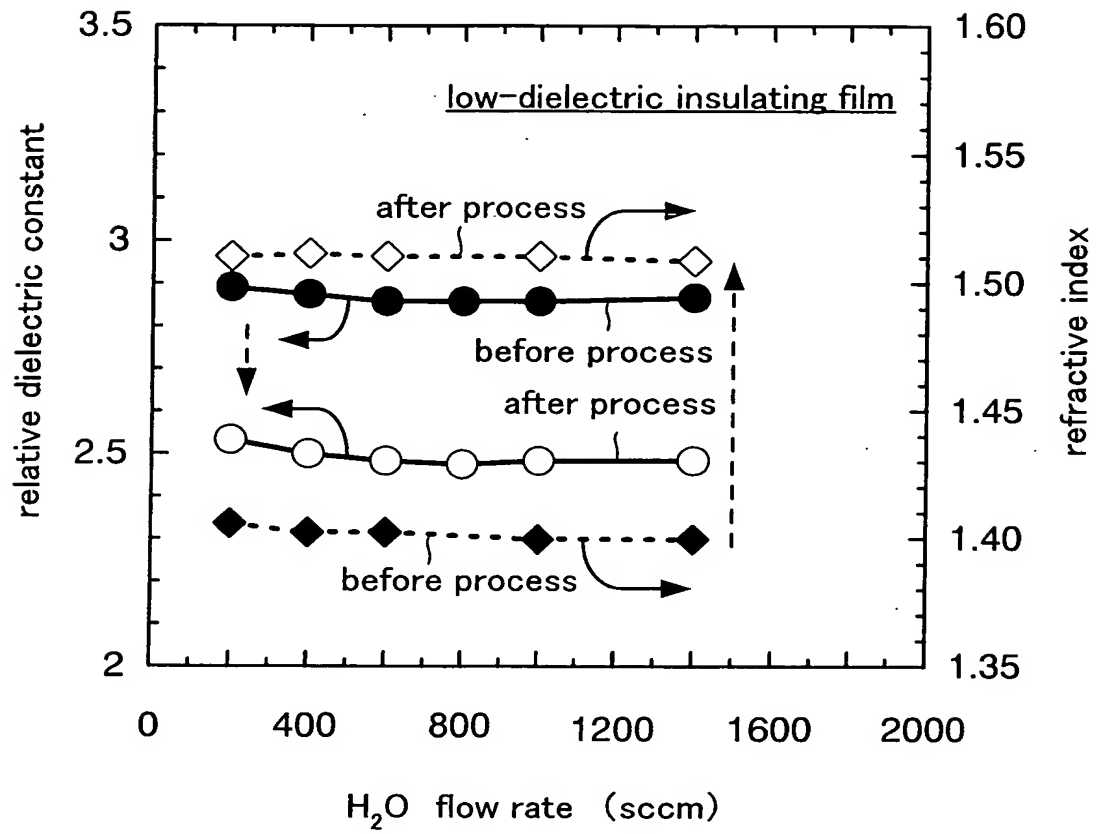


FIG. 7

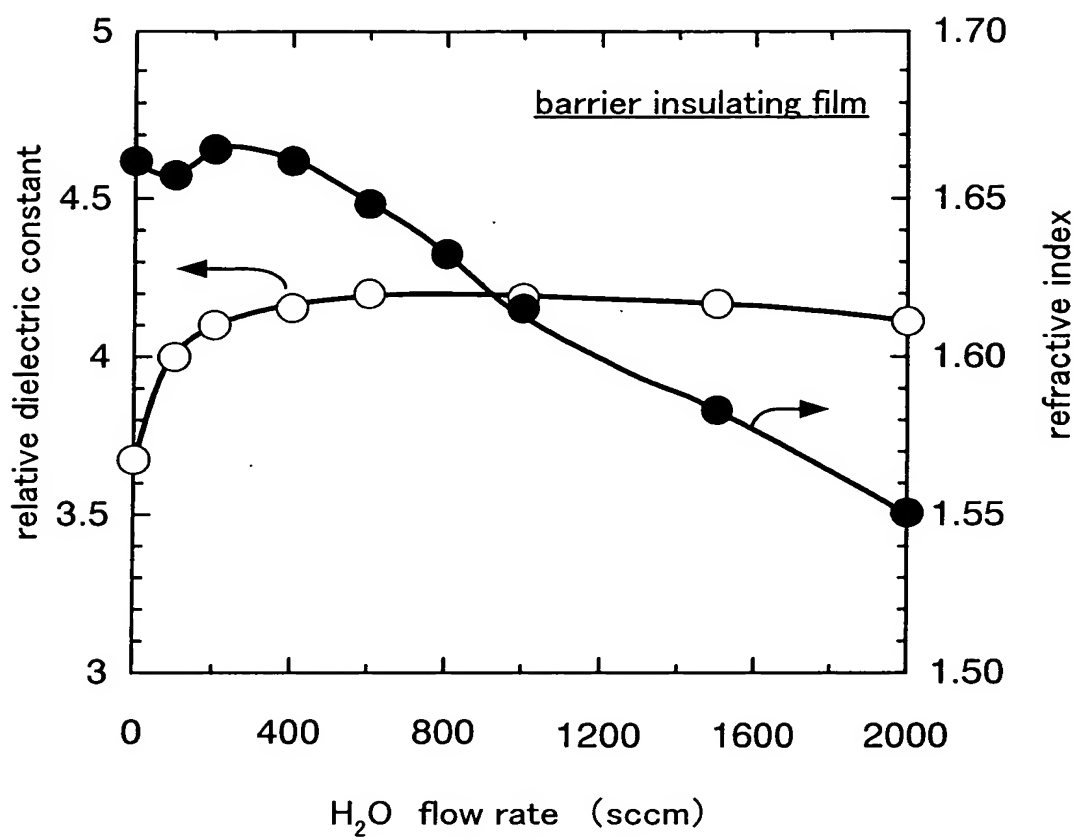


FIG. 8

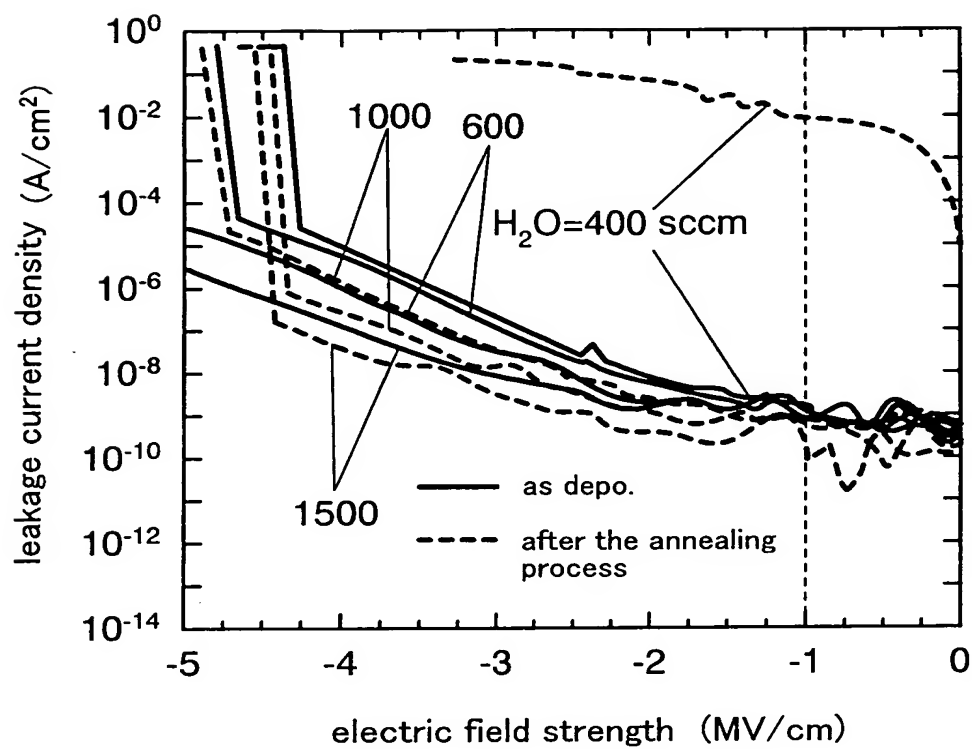


FIG. 9

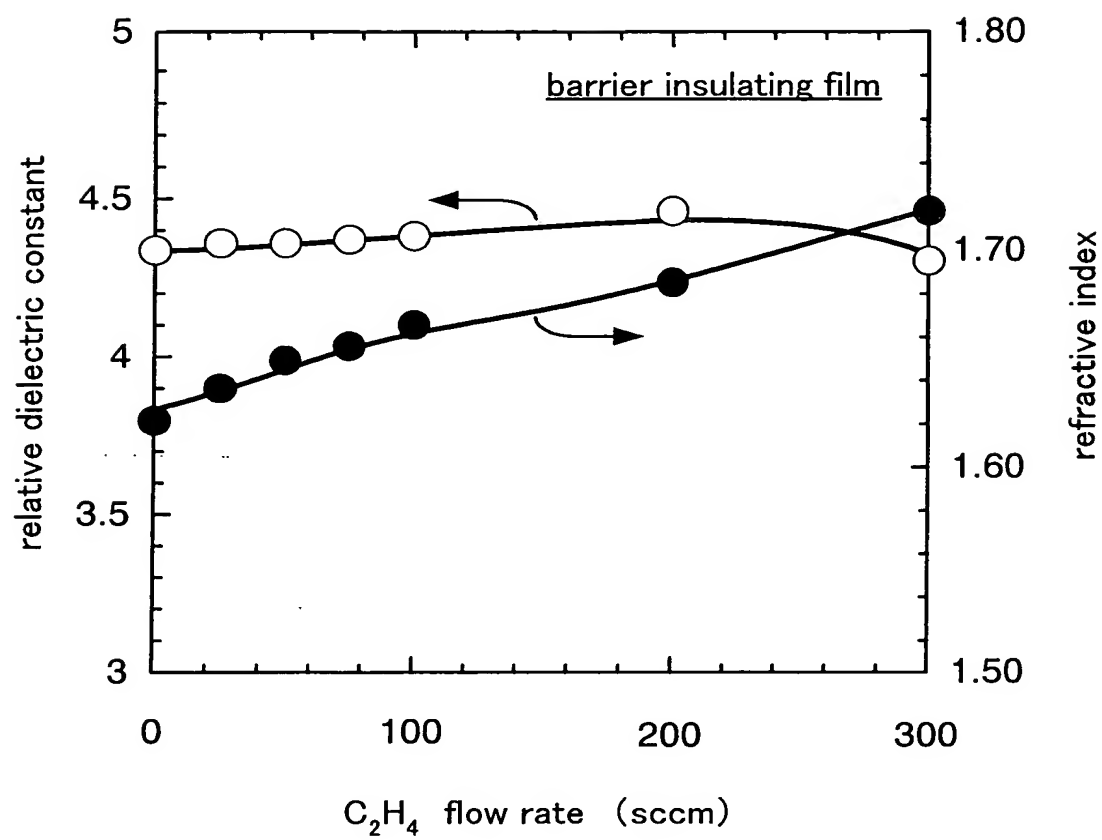


FIG. 10

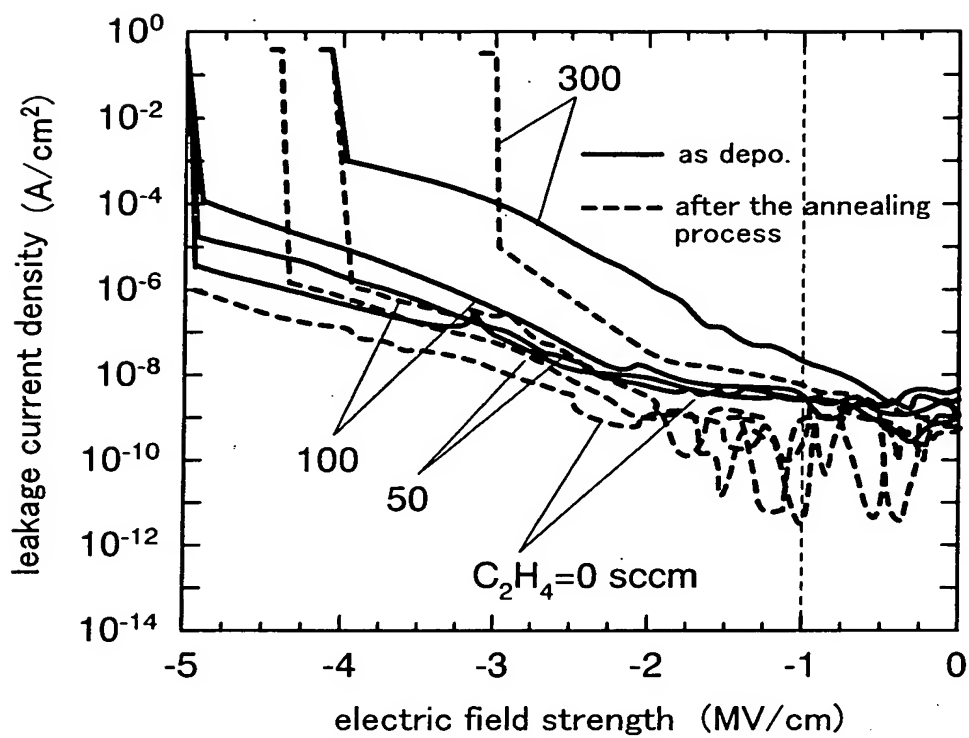


FIG. 11

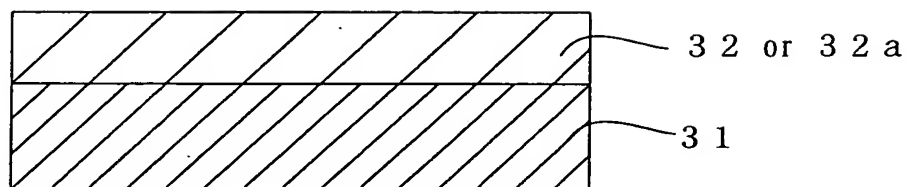


FIG. 12 (a)

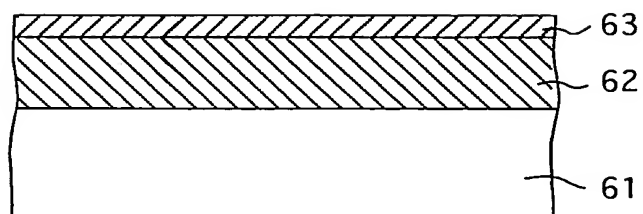


FIG. 12 (b)

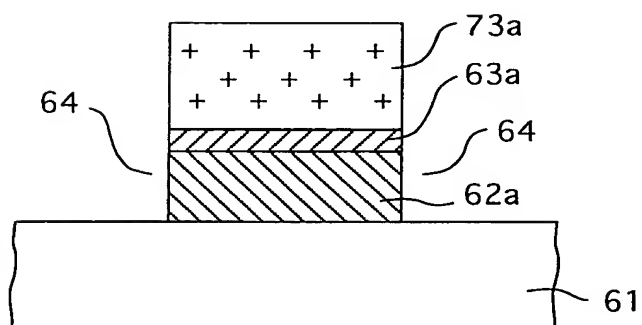


FIG. 12 (c)

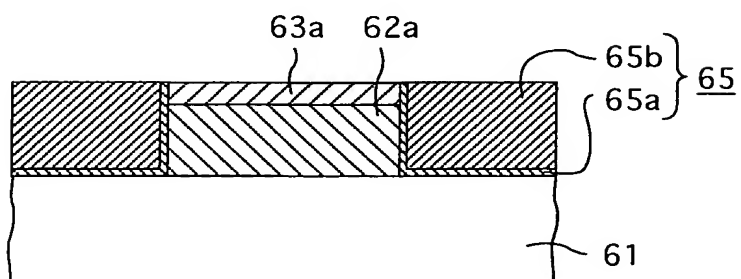


FIG. 12 (d)

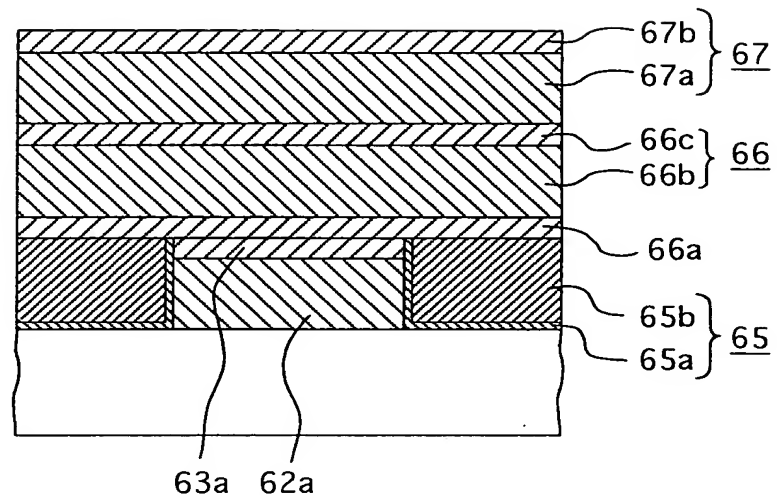


FIG. 12 (e)

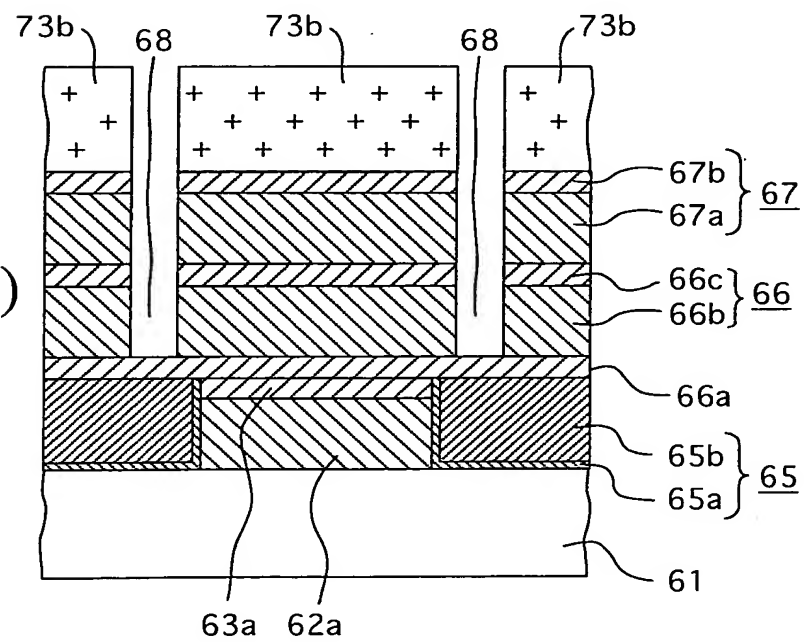


FIG. 13

